

1. A method of promoting tolerance in a recipient mammal to an allograft obtained from a donor mammal of the same species comprising:

- (a) introducing hematopoietic stem cells of said donor mammal into said recipient mammal;
- 5 (b) creating thymic space in said recipient;
- (c) depleting or lysing donor-reactive T cells of said recipient mammal; and
- (d) introducing said graft into said recipient mammal,

wherein the number of donor stem cells administered is sufficient such that mixed chimerism can be formed without hematopoietic space-creating irradiation.

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2. The method of claim 1, wherein said mixed chimerism is formed in the absence of hematopoietic space created by whole body irradiation.

3. The method of claim 1, wherein said recipient is a human.

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4. The method of claim 1, wherein said thymic space is created by administering to the recipient at least one treatment selected from the group consisting of thymic irradiation, steroids, corticosteroids, brequinar, or an immune suppressant chemical or drug.

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5. The method of claim 1, wherein said thymic space is created by administering thymic irradiation to said recipient.

6. The method of claim 1, wherein said thymic space is created by administering an immune suppressant chemical or drug to the recipient.

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7. The method of claim 1, wherein said thymic space is created by administering a short course of cyclosporin to said recipient.

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8. The method of claim 1, wherein multiple hematopoietic stem cell administrations are provided to said recipient.

9. The method of claim 1, further comprising inactivating donor-reactive NK cells of said recipient mammal.

10. The method of claim 1, wherein said graft comprises a kidney.

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11. The method of claim 1, wherein said graft comprises a liver.